Possible Anti-mating Signals in the Speckled Wood (*Pararge aegeria* L.)

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Introduction

During observation of the courtship of a pair of Speckled Woods on 16th August 1976, an apparent posture signal on the part of a gravid female seemed to have the remarkable effect of immediately causing the male to fly off without having mated, allowing the female to continue egg laying, This behaviour was again observed three days later, exactly the same cycle of events being repeated.

The location was a bridlepath bordered by trees and tall hedges on both sides, well frequented by this species in most years, there being a considerable increase in abundance in 1976

The Observations

A male and female were seen in a typical spiral courtship flight along the bridlepath. After continuing in this manner for several minutes the female settled on a large leaf about one foot from the ground and the male came down nearby. As the male approached from the rear, the female closed its wings vertically above its body into the settled position, but then tilted the wings and body sideways considerably to make an acute angle with the leaf surface, in a manner most reminiscent of the Grayling (*Hipparchia semele* L.). The male immediately flew off and was not seen to approach the female again, which after a couple of minutes flew up and was observed egg laying low amongst the grass stems.

This behaviour was again observed on the 19th August, and once more the male flew off immediately the female closed ots wings and tilted sideways. In both cases the female was seen to start oviposition after a few minutes, and the male made no further attempt at courtship.

Inferences

It would perhaps be unwise to draw too many firm conclusions from only two observations, but if for the moment we disregard the possibility of the behaviour observed being sheer coincidence, two explanations spring to mind.

At first, in view of the similarity of the female posture to the well known camouflage position adopted by the Grayling when settled, it was thought that the females were making use of the well disguised patterns to disappear from the males view. However, in view of the close proximity of the insects, only a few inches in each case, I now feel this is unlikely. The other explanation is that this is a definite signal, allied to signals and behaviour used in the courtship of some species, but in this case for the opposite effect.

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Any such signal is unlikely to have evolved unless it confers upon the species some definite advantage, and in this case a signal of this sort would appear to be of benefit in terms of an increase in reproductive potential from:

(a) Permitting fertilised females to minimise disturbance of their egg laying activities by over-eager males, cutting short unwanted and unnecessary courtship.

(b) Increasing the likelihood that unwanted females will be sought out by the males, as females already mated will deter further courtship by means of the signal, causing the males to continue in search of a more attractive and more willing partner.

Future Study

The season of 1977 proved most disappointing, and since then pressure of work has prevented me from spending sufficient time in the field to note this behaviour again. Further study is badly needed in order to confirm, or refute, my findings.

I would be most grateful to hear from anyone who observes, or has observed in the past, this behaviour, or has any views on the subject. I hope to publish a future paper on this matter when more observational data is forthcoming.

EARWIG'S MULTIPLE EGG-BROOD. — On April 1st, 1979, I was fascinated to discover a female earwig (*Forficula auricularia* L.) protecting eggs in the deep cavity left by the removal of a large stone on the site of a ruined farmhouse at Eythrope, Stone, in Bucks. The egg chamber was made vertically at the edge of the cavity, and the interesting thing is that while the female could be seen protecting one batch of eggs in a cavity at the bottom of the nest tunnel, there was another chamber at the top (surface level) containing a further batch of eggs. Would this have been some kind of predator- protection device, or a means of preventing fungoid infection and its spread perhaps,? There were, incidentally, two further egg batches in chambers at either end of the cavity, perhaps eight inches away from the main tunnel, and since no female was in attendance one wonders if these too were the central female's. I would estimate that each of the four batches contained some 30-40 eggs, but not having taken down precise details at the time this is merely an approximation. I have, by the way, reared the common earwig on several occasions and have been interested to note their omnivorous nature. They readily consume dead insects, as well as scraps of cat meat! Some time ago I found an adult consuming the flesh of a dead blackbird. Incidentally, has any reader ever come across any direct evidence for earwigs entering the human ear — or seen one flying? The lesser earwig, *Labia minor,* flies readily, of course. — ANTHONY WOOTTON, Stone, Bucks.